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VIA U.S. FIRST-CLASS MAIL

Mr. Jon Capacasa
Director
Water Protection Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Mr. Lee McDonnell
Director for the Bureau of Point and Non-Point Source Management
Pennsylvania Department of Environmental Protection
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17101

RE: New Information Regarding Validity and/or Need for the Indian Creek Nutrient TMDL – Request for TMDL Reconsideration

Mr. Capacasa and Mr. McDonnell:

On behalf of the Telford Borough Authority (“Telford”), please see the accompanying new data and information regarding the site-specific conditions in Indian Creek and the need to revise the currently adopted nutrient TMDL for Indian Creek. As you are aware, attaining the phosphorus targets set forth in the TMDL (40 µg/l) would cause a significant financial impact on Telford and the other regulated communities on the Indian Creek watershed. Moreover, the communities have repeatedly raised the concern that meaningful ecological improvements will not result from these expenditures. Due to these concerns regarding the scientific validity of the TMDL, Telford has conducted additional literature research regarding the ability to control periphyton growth in small streams as well as a site-specific evaluation to determine if the Authority’s recent, dramatic TP reductions had any effect on periphyton growth. This body of information, never before considered by either EPA or DEP, confirms, to a scientific certainty, that the adopted TMDL TP reductions will be ineffective in addressing periphyton growth in this system. The research does, however, indicate a clear path forward for system restoration. The research verifies that light limitations (via, *e.g.*, canopy restoration or stream bank improvement) can be an effective tool to limit excessive plant growth. To that end, it is our understanding that the Region and the Department are currently discussing an integrated watershed planning “settlement” that will alleviate the need for Telford to further reduce its nutrient load to the

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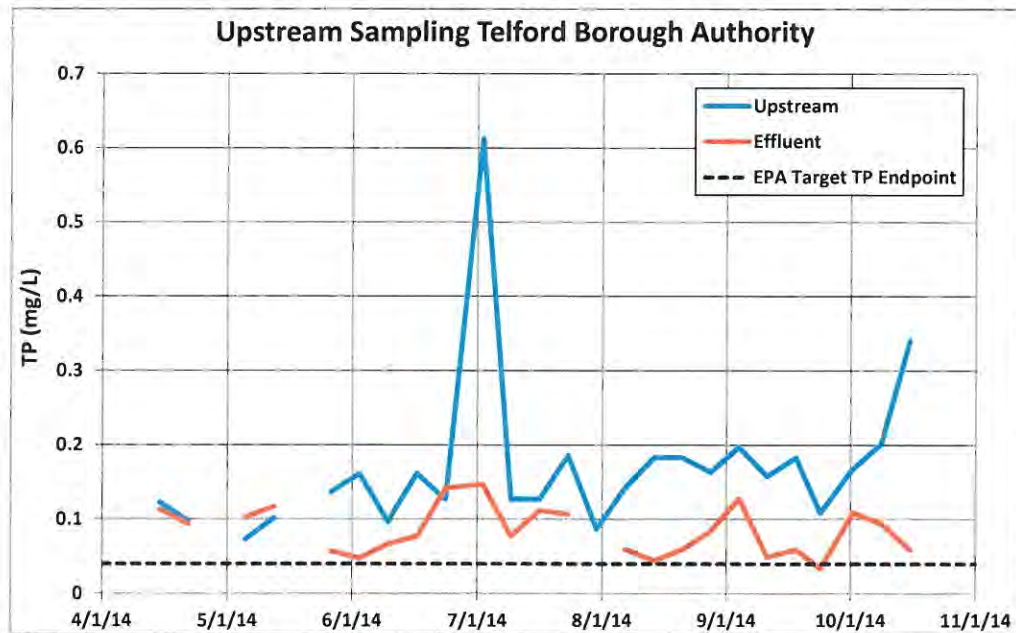
targets established in the TMDL. As noted previously, the Authority would participate in such efforts as a more productive expenditure of local resources.

Please consider this submission a formal request to reconsider and amend the TMDL as well as the Section 303(d) listings based on new information showing the TMDL endpoints and requirements are misplaced.

New Information Justifying TMDL and Section 303(d) List Amendment

The following constitutes the new scientific information regarding the efficacy of TP reductions to achieve periphyton growth reduction as expressed in the 2008 Indian Creek Nutrient TMDL.

- Site-specific total phosphorus (TP) data collected upstream of Telford's discharge and from the Telford's effluent confirming downstream water quality is better than upstream water quality.



Conclusion: Concentrations of TP are higher in the background (upstream) sections of Indian Creek than they are in Telford's discharge itself. TP at the upstream station averaged <0.170 mg/L while the Telford effluent averaged <0.085 mg/L. Thus, it is apparent that a $40 \mu\text{g/l}$ instream TP concentration cannot be achieved in this system and that background TP levels are elevated as previously stated by the Authority.

- The site-specific Indian Creek report done by Kleinfelder, Inc. in the 2014 growing season analyzing TP and periphyton data. See attached, Ex. 1.

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Conclusion: *Excessive plant growth is occurring in Indian Creek regardless of TP concentrations and Telford's wastewater treatment plant reductions; the chlorophyll-a level has no relationship to TP concentrations in Indian Creek. During the 9/24/14 periphyton survey, periphyton levels of 300-335 mg/m² chl-a were observed in a range of 0.10-0.24 mg/L TP. At the remaining survey sites, higher periphyton levels between 490-825 mg/m² chl-a were observed in a slightly lower range of 0.06-0.18 mg/L TP. Periphyton remained very high on the unnamed tributary where the, now discontinued, Pilgrim's Pride discharge had been located. Periphyton reductions are not occurring as predicted by the TetraTech modeling, confirming that model is not properly calibrated. Even zero discharge cannot control periphyton growth.*

Chlorophyll-a levels are affected by the percentage of canopy. The three periphyton survey samples at 0% unshaded sites averaged 372 mg/m² chl-a while the three survey samples at sites of at least 70% unshaded averaged 616 mg/m².

- Numerous scientific studies confirm that periphyton control via TP reduction is impossible, except at extremely low levels of TP that are not attainable in this system (less than 10- 20 µg/l of soluble reactive phosphorus). See attached Ex. 2, Literature Synopsis; Ex. 3, WE&T Article, August 2014.

Conclusion: *The studies confirm that light limitation is the only viable means of controlling periphyton growth in systems such as these. Even if the 40 ug/l TP goal of the TMDL was met, the excessive algae would continue unabated; other improvements (i.e., canopy restoration) will be necessary to improve the conditions in Indian Creek. Moreover, if such habitat restoration is completed, there is no need to reduce TP.*

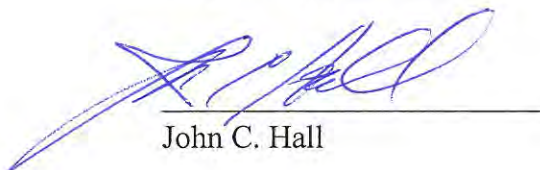
In summary, Telford believes that this new information confirms, to a scientific certainty, that the 40 µg/l instream TP target in the Indian Creek TMDL (1) is unachievable given the background concentrations of TP, and (2) would not eliminate the impairments in Indian Creek, even if it were achieved. The literature confirms that it is only through light limitation, the presence of grazers and periodic scouring events that periphyton growth is reduced in small stream systems such as Indian Creek. In fact, we would expect that extensive stormwater controls, proposed by EPA, *will cause greater periphyton growth to occur* in this system by reducing the number of scouring events and allowing filamentous growth to persist. That is, this new information not only confirms that the TMDL's present approach will not just misdirect local resources on an ineffective remedy, it will, in the end, most likely cause more harm than good.

In light of this new information and Pennsylvania's law recognizing that waterbodies impaired due to natural/background conditions do not need a TMDL, Telford requests that the Region and Department reconsider the 303(d) impairment listing and the nutrient TMDL for Indian Creek. In the

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interim, Telford requests that the TMDL be deferred and/or withdrawn in lieu of habitat, canopy, and riparian zone restoration.

Respectfully,



John C. Hall

Enclosures